

REMARKS

Claims 1-22 were pending in the application. Claims 2 and 12 are canceled. Claims 1, 3, 11, 13, 21 and 22 are amended. No new matter has been introduced. Claims 1, 3-11 and 13-22 are now pending of which claims 1, 11, 21 and 22 are independent.

Examiner Interview

A telephonic interview was conducted between the Applicants' representative and the Examiner in this case on March 8, 2008. Applicants thank the Examiner for granting and conducting the interview.

Claim Rejections 35 U.S.C 102(b)

Claims 1, 2, 4-10, 21 and 22 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Shriberg et al. (Can Prosody Aid the Automatic Classification of Dialog Acts in Conversational Speech?) published in 1998.

Applicants respectfully traverse this rejection in view of the amendments to the claims and further in view of the following arguments.

Claim 1

Claim 1 is amended to recite "A method of determining a predictive model for discourse functions comprising the steps of: determining a training corpus of speech utterances; determining discourse functions associated with speech utterances in the training corpus, the discourse functions being determined automatically based on a theory of discourse analysis; determining prosodic features associated with the speech utterances in the training corpus; and determining a predictive model of discourse functions by associating the prosodic features determined from the speech utterances in the training corpus with the discourse functions determined from the speech utterances in the training corpus, wherein the predictive model of

discourse functions is operable to predict from prosodic features of a specific recognized speech, a likelihood that speech utterances of the specific recognized speech reflect a specific discourse function, and wherein the predictive model of discourse functions is operable to predict a likelihood of a first portion of a speech utterance being associated with a command directed at an application and a second portion of the speech utterance being associated with content being provided to the application.” (Emphasis added.)

Support for these amendments may be found throughout the specification and drawings and, for example, in paragraphs 21 to 26, paragraph 38 and paragraphs 50 to 52 of the specification and in Figures 6 to 9 of the drawings.

Applicants submit that Shriberg does not appear to teach or suggest “determining discourse functions associated with speech utterances in the training corpus, the discourse functions being determined automatically based on a theory of discourse analysis” of claim 1.

Shriberg expressly states that it does not deal with “determining discourse functions ... automatically based on a theory of discourse analysis.” (Shriberg, p. 43.) Under the “Future Work” section starting on page 42 of this reference, there is a section titled “Automatic Dialog Act Classification and Segmentation.” (Id., p. 43.) This section starts out “Perhaps the most important area for future work is the automatic segmentation of dialogs into utterance units. As explained earlier, we side-stepped the segmentation problem for the present study by using segmentation by human labelers. Eventually, however, a fully automatic dialog annotation system will have to perform both segmentation and DA classification.” (Id.; emphasis added.) Therefore, claim 1 is not anticipated by Shriberg because it recites “determining discourse functions ... automatically based on a theory of discourse analysis,” which Shriberg is admittedly lacking.

Applicants further submit that Shriberg does not teach or suggest that “the predictive model of discourse functions is operable to predict a likelihood of a first portion of a speech utterance being associated with a command directed at an application and a second portion of the speech utterance being associated with content being provided to the application” of claim 1.

The various Dialog Acts (DAs) of Shriberg are shown on pages 8 and 9 of this reference and a complete list is provided in Appendix A starting on page 53. Further, a list of incomplete utterances is provided on page 35 of Shriberg. Shriberg appears to be rather complete in discussing its DAs, yet it leaves out any discussion of “command” or “content.”

Accordingly, for all the foregoing reasons, Applicants submit that Shriberg does not anticipate claim 1.

Claim 21

With respect to claim 21, Applicants submit that Shriberg does not teach or suggest at least “the discourse functions being determined automatically based on a theory of discourse analysis” or “the predictive model of discourse functions is operable to predict a likelihood of a first portion of a speech utterance being associated with a command directed at an application and a second portion of the speech utterance being associated with content being provided to the application” of claim 21.

Accordingly, Applicants submit that Shriberg does not anticipate claim 21 at least for the foregoing reasons.

Claim 22

With respect to claim 22, Applicants submit that Shriberg does not teach or suggest at least “the discourse functions being determined automatically based on a theory of discourse analysis” or “the predictive model of discourse functions is operable to predict a likelihood of a

first portion of a speech utterance being associated with a command directed at an application and a second portion of the speech utterance being associated with content being provided to the application” of claim 22.

Accordingly, Applicants submit that Shriberg does not anticipate claim 22 at least for the foregoing reasons.

Claim Rejections 35 U.S.C 103

Claims 3 and 11-20 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Shriberg in view of Chino (U.S. Patent No. 5,761,637).

Applicants respectfully traverse this rejection in view of the amendments to the independent claims and further in view of the following arguments.

Claim 11

Applicants submit that Shriberg does not teach or suggest at least “the predictive model of discourse functions is operable to predict a likelihood of a first portion of a speech utterance being associated with a command directed at an application and a second portion of the speech utterance being associated with content being provided to the application” of claim 11.

Chino is cited for teaching the various theories of discourse analysis. (Office action, p. 8.) As such, cited portions of Chino do not cure the deficiency of Shriberg and claim 11 is believed to remain patentable over a combination of these references.

Further, Shriberg, alone or combined with cited portions of the Chino, does not teach or suggest all elements of the other independent claims 1, 21 and 22. Accordingly, these claims are also believed to be patentable in view of both cited references.

Dependent Claims

Claims 3-10 depend from claim 1 and claims 13-20 depend from claim 11.

With respect to the rejection of dependent claims 3-10 and 13-20, while continuing to traverse the Examiner's characterization of the teachings of the references used by the Examiner in rejecting these claims, Applicants respectfully submit that the rejection of these claims is rendered moot by the present amendments of the respective parent claims 1 and 11 and that these claims are patentable by definition, by virtue of their dependence upon their respective patentable independent claims.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

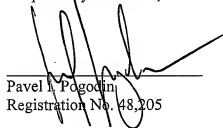
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Claims are all the claims pending in the application.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



Pavel I. Pogodin
Registration No. 48,205

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON DC OFFICE

23373

CUSTOMER NUMBER

Date: May 23, 2008